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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-F-0003

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

DEPT CLINICAL INVESTIGATION  
DWIGHT DAVID EISENHOWER AMC

FORT GORDON, GA 30905

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	3	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	2	0	68	0	68
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
03-FEB-2014

(b)(6), (b)(7)(c)

**Protocol: 1**

**Species (common name):** Guinea Pigs

**Number:** 2

**Explanation of procedure producing pain and/or distress:**

The guinea pig has historically been validated in arenavirus pathogenesis and vaccine assessment trials. As such, the guinea pig model will be utilized to assess a total of up to 6 vaccine candidates for arenavirus pathogenesis. Infection may cause subsequent severe disease and/or death.

**Justification why pain and/or distress could not be relieved:**

Even with enhanced monitoring according to the predetermined clinical-illness and pain algorithm it is possible that an animal may succumb to lethal arenavirus infection. These types of deaths are unanticipated but could happen suddenly while the animal is not being directly observed by animal care personnel. As such approximately 5% of the total numbers of animals have been allocated to Category E classification. All efforts will be made to ensure timely euthanasia prior to the onset of lethal disease to minimize the numbers of animals that die unexpectedly following infection.

**Protocol: 2**

**Species (common name):** Hamster

**Number:** 8

**Explanation of procedure producing pain and/or distress:**

The evaluation of biologics and strategies for pre- and post-exposure prophylaxis and for the treatment of rabies. The development of clinical rabies infection is expected to occur in a subset of the infected animals. There are occasionally animals that progress to a terminal state before we are able to humanely euthanize them.

**Justification why pain and/or distress could not be relieved:**

All animals infected with rabies virus will be euthanized at the onset of clinical signs of rabies. Approximately 7 days following inoculation of rabies virus, control animals may start to show signs of rabies. After day 7 post infection (7 days post through day 21), all experimentally infected animals will be checked twice daily by members of the rabies program in addition to routine husbandry checks performed by the Animal Resources Branch (ARB). Additionally, rabies associates are on call at all times during an infection. This information is posted outside of all animal treatment rooms. However, occasionally animals progress rapidly from apparently healthy to a terminal state. This can occasionally occur overnight or between routine check periods. The majority of animals will be euthanized at first onset and we do not expect a significant number of animals to rapidly progress as described above. Based on prior experience with hamsters under similar experimental protocols we might expect 3-10% of animals that develop signs of rabies to progress to death before euthanasia can be administered. These animals will subsequently be categorized as pain category E.

**Protocol: 3**

**Species (common name):** Ferrets

**Number:** 3

**Explanation of procedure producing pain and/or distress:**

The focus of our study is to understand the mechanisms of transmission of influenza virus. Infection of ferrets with highly pathogenic H5N1 viruses may cause severe morbidity and even death in some cases.

**Justification why pain and/or distress could not be relieved:**

Every attempt will be made to euthanize the animal prior to it reaching a moribund state. Animals will be monitored daily and will be euthanatized if they reach 10 points on the 10-point euthanasia scale.

The focus of our study is to understand the mechanisms of transmission of influenza virus. After animals are infected with influenza virus, an initial inflammatory response occurs that is important to disease progression and virus shedding which directly affects the ability of a virus to transmit from one animal to another (1,2). Any manipulation of the inflammatory response with analgesics will affect the overall immune response and will preclude an accurate assessment of disease and transmissibility. For example, Type I and II interferon and NK cell responses are important components of the immune response to influenza. Manipulation of these responses with anti-inflammatory drugs such as NSAIDs or opioids directly affect virus shedding, fever, activity levels and additional disease parameters that can play a role in the frequency of virus transmission (3-6). Our preliminary studies suggest that a majority of viruses to be evaluated in this study will actually be attenuated for ferrets. Therefore, we estimate that only 25% of animals at most may experience symptoms that require euthanasia.

1. Immunol Rev. Pathogenesis of emerging avian influenza viruses in mammals and the host innate immune response. 2008 Oct;225:68-84.
2. Emerg Infect Dis. Antiviral response in pandemic influenza viruses. 2006 Jan;12(1):44-7.
3. J Virol. Intranasal administration of alpha interferon reduces seasonal influenza A virus morbidity in ferrets. 2009 Apr;83(8):3843-51.
4. Curr Med Res Opin. Alleviating flu-like symptoms with dose titration and analgesics in MS patients on intramuscular interferon beta-1a therapy: a pilot study. 2007 Jul;23(7):1667-72.
5. Life Sci. Morphine reduces pulmonary inflammation in response to influenza infection. 1999;65(11):1141-52.
6. Brain Behav Immun. Stress-induced modulation of NK activity during influenza viral infection: role of glucocorticoids and opioids. 2005 Mar;19(2):153-64.

**Protocol: 4**

**Species (common name):** Ferret

**Number:** 127

**Explanation of procedure producing pain and/or distress:**

The focus of our study is to understand the mechanisms of transmission of influenza virus. Infection of ferrets with highly pathogenic H5N1 viruses may cause severe morbidity and even death in some cases. Ferrets are the only animals that adequately mimic influenza human influenza infection

**Justification why pain and/or distress could not be relieved:**

Most ferrets exhibit a modest rise in temperature, minimal weight loss and little to no decrease in activity when infected with the Influenza virus. Many viruses that are highly pathogenic in domestic poultry will also cause only moderate disease in ferrets.

In a few animals, progression of the disease may cause more severe respiratory and systemic symptoms. When retained through the second week of infection, these animals may also develop neurological symptoms. Onset of neurological symptoms may occur as early as day 7 or as late as 13 days post-infection. Neurological signs include torticollis, ataxia and hind-limb paresis. When these neurological signs are observed, the animal is immediately euthanized. Since animals are observed twice a day, ferrets would exhibit signs for less than 1 day before euthanasia. The onset of these symptoms and progression of the disease is rapid, often measured in less than 24 hours, leaving little time to effectively treat the ferrets. The stress of receiving the treatment can also hasten the death of the ferret. For this reason, at the first sign of any neurological symptom, the animal is euthanized. In rare cases, animals may die without

exhibiting respiratory or neurological symptoms and with disease apparently no more severe than those that survive.

**Protocol: 5**

**Species (common name):** Prairie Dogs

**Number:** 20

**Explanation of procedure producing pain and/or distress:**

Prairie Dogs will be inoculated with monkeypox virus (MPXV). Testing smallpox vaccines requires the development of relevant animal models. Current smallpox vaccine testing animal models include; ectromelia virus (ECTV) infection of mice, VACV infection of mice, rabbitpox virus (RPXV) and VACV infection of rabbits, and VARV and MPXV infection of nonhuman primates (NHP). Current weaknesses of some of these models include significant differences from human disease progression and presentation, and abbreviated disease incubation periods. The validation of alternative animal models for smallpox vaccine testing is an active area of research as evidenced by the recent publication of novel animal models. Currently, the most widely accepted model for testing human vaccine efficacy is the macaque model, but concerns about ethics, animal homogeneity, availability, and cost indicate a continuing need for a more effective small animal model.

**Justification why pain and/or distress could not be relieved:**

Although all sampling procedures will be performed on anesthetized animals and any uninfected animal that becomes ill will be pulled from the study and treated as deemed appropriate by the Attending Vet; infected animals that exhibit monkeypox disease in these studies will not be treated unless the animal requires humane euthanasia based on the established pain score.

**NSAIDs**

The nuclear factor  $\kappa$ B (NF- $\kappa$ B) transcription factor is involved in the transcription of many proinflammatory as well as antiapoptotic genes and therefore is an important component in the progression of inflammatory diseases, including poxviruses such as monkeypox (Barnes et al 1997). Orthopoxviruses appear to have acquired mechanisms to inhibit antiviral effects of NF- $\kappa$ B activation; encoding multiple proteins that act in various ways to prevent NF- $\kappa$ B activation (Reviewed by Moss and Shisler 2001; Seet et al 2003). The ability of orthopoxviruses to modulate NF- $\kappa$ B activation likely plays an important role in the ability of these viruses to cause disease, and therefore the utilization of substances that inhibit NF- $\kappa$ B activation would greatly change the normal virus lifecycle. Numerous drugs have been shown to inhibit NF- $\kappa$ B and therefore have anti-inflammatory results in experimental models (Reviewed by D'Acquisto, May and Ghosh 2002). These include salicylates, NSAIDs, and glucocorticoids to name a few. Metacam is commonly prescribed by veterinarians and falls into the NSAID category. The administration of an anti-inflammatory medication to ease distress would alter viral disease progression in unknown ways and could potentially interfere with or alter the therapies being tested in these studies. Either of these would severely confound our results making them impossible to analyze.

**References:**

- 1) Barnes, P.J. & M. Karin. 1997. Nuclear factor-  $\kappa$ B: a pivotal transcription factor in chronic inflammatory diseases. *N Engl J Med* 336: 1066-1071.
- 2) Moss, B., and Shisler J.L. 2001. Immunology 101 at poxvirus U: immune evasion genes. *Semin Immunol* 13(1): 59-66.
- 3) Seet, B.T., et al. Poxviruses and immune evasion. 2003. *Annu Rev Immunol* 21: 377-423.

- 4) D'Acquisto, F., May, M.J., & Ghosh, S. 2002. Inhibition of nuclear factor kappa B (NF-kB): an emerging theme in anti-inflammatory therapies. *Molec Interv* 2: 22-35.

### Opioids

Our reasoning behind not using opioid based analgesics for infected animals is that opioid-based analgesics have multiple adverse effects that would interfere with both our assessment of MPXV disease and the immune response to MPXV infection in the prairie dog. MPXV infection can cause bloating, which could be confused with postoperative ileus brought on by the drugs and MPXV infection can cause respiratory distress which could be confused with the depression of respiratory function which can occur with opioid analgesics. In addition, opioid analgesics in rats have been shown to cause temperature deregulation and respiratory depression which could affect the safety of the animals during anesthesia and would also affect the behavior and eating habits of the animals. Since part of our experimental aims are to understand the ability of post-exposure vaccines to protect the animals from MPXV disease, any masking of the MPXV disease will make our mortality and morbidity results difficult to interpret, thus compromising our data. In addition, this experiment also seeks to understand the immune response to MPXV infection in this animal model and opioid based analgesics are known to increase TNF-alpha and IFN-gamma which are two major cytokines implicated in the immune response against MPXV infection, so use of these drugs would compromise our analysis of the immune response also. Lastly, MPXV can affect liver function and would this make dosing of the animals difficult to ascertain as these drugs are metabolized in the liver.

### References:

- 1) Cherny, N. et al., 2001. Strategies to Manage the Adverse Effects of Oral Morphine: An Evidence-Based Report. *Journal of Clinical Oncology*, 19-9 (May): 2542-2554.
- 2) Brand, J. et al., 2003. Clinical Aspects, Early Alterations in the Number of Circulating Lymphocyte Subpopulations and Enhanced Proinflammatory Immune Response During Opioid-Based General Anesthesia. *Shock*, 20-3: 213-217.

Animals that become severely ill due to monkeypox disease will be humanely euthanized and those that are not severely ill typically start showing signs of disease at Day7-9 post-infection and have recovered from all symptoms of the disease by Day17-21 post infection. All animals infected with monkeypox are classified as category E. Animals that are not challenged with monkeypox, including those that are vaccinated, are listed as category D as we have previously shown that vaccination does not cause illness.

### Protocol: 6

**Species (common name):** Ferret

**Number:** 19

### Explanation of procedure producing pain and/or distress:

The focus of our study is to understand the mechanisms of transmission of influenza virus. Infection of ferrets with highly pathogenic H5N1 viruses may cause severe morbidity and even death in some cases.

### Justification why pain and/or distress could not be relieved:

Every attempt will be made to euthanize the animal prior to it reaching a moribund state. Animals will be monitored daily and will be euthanized if they reach 10 points on the 10-point euthanasia scale detailed in the Protocol Description section.

The crux of our study is to evaluate influenza virus vaccines and to understand the mechanisms of disease caused by influenza virus infection that can be prevented by vaccination. Disease is assessed based on

clinical signs observed in infected animals such as lethargy, fever, weight loss, etc... that would be obscured by pain relieving drugs. After influenza virus infection, the initial inflammatory response, as well as the subsequent adaptive T and B cell responses, are crucial to the progression of disease and directly affects the clinical signs observed in the animals (1,2). Any manipulation of the inflammatory response with analgesics will affect the overall immune response and will prevent an accurate assessment of disease. For example, Type I and II interferon and NK cell responses are important components of the immune response to influenza. Manipulation of these responses with anti-inflammatory drugs such as NSAIDs or opioids directly affect virus shedding, incidence of fever and additional disease parameters (3-6). Our preliminary studies suggest that a majority of viruses to be evaluated in this study will actually be attenuated for ferrets. Therefore, we estimate that only 25% of animals at most may experience symptoms that require euthanasia.

1. Immunol Rev. Pathogenesis of emerging avian influenza viruses in mammals and the host innate immune response. 2008 Oct;225:68-84.
2. Emerg Infect Dis. Antiviral response in pandemic influenza viruses. 2006 Jan;12(1):44-7.
3. J Virol. Intranasal administration of alpha interferon reduces seasonal influenza A virus morbidity in ferrets. 2009 Apr;83(8):3843-51.
4. Curr Med Res Opin. Alleviating flu-like symptoms with dose titration and analgesics in MS patients on intramuscular interferon beta-1a therapy: a pilot study. 2007 Jul;23(7):1667-72.
5. Life Sci. Morphine reduces pulmonary inflammation in response to influenza infection. 1999;65(11):1141-52.
6. Brain Behav Immun. Stress-induced modulation of NK activity during influenza viral infection: role of glucocorticoids and opioids. 2005 Mar;19(2):153-64.

**Protocol: 7**

**Species (common name):** Ferret

**Number:** 41

**Explanation of procedure producing pain and/or distress:**

The ferret is the only small animal known to be susceptible to human influenza viruses without prior adaptation by sequential passage. Because such passages alter the properties of the virus, use of the ferret model is necessary to be able to interpret the results of the vaccination studies unambiguously. In addition, ferrets that become infected with human influenza viruses develop clinical signs that resemble those seen in human infections.

**Justification why pain and/or distress could not be relieved:**

Two kinds of drugs were considered:

- 1) Nonsteroidal anti-inflammatory drugs (NSAIDs, COX inhibitors) and related analgesics. This class of drugs cannot be used because they may alter viral replication levels, body temperature and body weight loss; all of which are important parameters in our studies. NSAID therapy is not considered because of its potentially detrimental impact on the interpretation of the effects of the vaccine.
- 2) Opioid drugs. These agents cause depression of respiratory control centers in the CNS. Highly pathogenic influenza virus infection in ferrets can cause an acute respiratory distress syndrome which may be aggravated by opioid drugs. Consequently, opioid therapy is not considered because of its potentially detrimental impact on the interpretation of the effects of the vaccine.

Pain will be minimized by observation of the animals as frequently as 4-hour intervals to evaluate the severity of the symptoms and make the earliest possible decision (according to predetermined criteria) on humane termination by euthanasia.

**Protocol: 8****Species (common name):** Prairie Dogs**Number:** 1**Explanation of procedure producing pain and/or distress:**

Prairie dogs will be infected with monkeypox virus (MPX) to investigate the effect of different classes of nonsteroidal anti-inflammatory drugs (NSAIDs) and opioids on MPXV disease presentation/progression within the MPXV prairie dog animal model and to investigate the effect of nonsteroidal anti-inflammatory drugs (NSAIDs) and opioids on the activation of NF- $\kappa$ B in a MPXV prairie dog animal model serial sacrifice experiment.

**Justification why pain and/or distress could not be relieved:**

Although all animals that become sick will receive fluid support as needed and will be humanely euthanized if they meet the euthanasia criteria. Animals placed in category E will not be given pain relieving or anti-inflammatory drugs because these agents have been shown to interfere with the Nuclear Factor Kappa B (inflammatory pathway) which is believed to be an important process for poxvirus infections. The nuclear factor KB (NF-KB) transcription factor is involved in the transcription of many pro inflammatory as well as antiapoptotic genes and therefore is an important component in the progression of inflammatory diseases, including poxviruses such as monkeypox (Barnes et al 1997). Orthopoxviruses appear to have acquired mechanisms to inhibit antiviral effects of NF-KB activation; encoding multiple proteins that act in various ways to prevent NF-KB activation (Reviewed by Moss and Shisler 2001; Seet et al 2003). Numerous drugs have been shown to inhibit NF-KB and therefore have anti-inflammatory results in experimental models. These include salicylates, NSAIDs, opiates, and steroids to name a few. However, different drugs have been shown to inhibit NF- KB via different mechanisms and therefore may have a different effect on the viral life cycle (Reviewed by D'Acquisto, May and Ghosh 2002). Until we do the planned study, we do not know if utilization of these drugs would increase viral pathogenesis (if for instance they are both simultaneously inhibiting NF-KB activation) or if viral pathogenesis would be decreased or remain the same as untreated animals.

Those animals placed in Category E and not given pain relieving drugs will be considered the positive controls for the studies and their disease progression and presentation during the study as well as molecular results after the study will be compared to those animals infected with MXPV that do receive pain relieving drugs.

**References:**

- 1) Barnes, P.J. & M. Karin. 1997. Nuclear factor- KB: a pivotal transcription factor in chronic inflammatory diseases. *N Engl J Med* 336: 1066-1071.
- 2) Moss, B., and Shisler J.L. 2001. Immunology 101 at poxvirus U: immune evasion genes. *Semin Immunol* 13 (1): 59-66.
- 3) Seet, B.T., et al. Poxviruses and immune evasion. 2003. *Annu Rev Immunol* 21: 377-423.
- 4) D'Acquisto, F., May, M.J., & Ghosh, S. 2002. Inhibition of nuclear factor kappa B (NF-KB): an emerging theme in anti-inflammatory therapies. *Molec Interv* 2: 22-35.

**Protocol: 9**

**Species (common name):** Hamster

**Number: 6**

**Explanation of procedure producing pain and/or distress:**

The study objective is to evaluate the protective efficacy of vaccines against Nipah virus. Hamsters are a known model to study pathogenesis and protection against Nipah and Hendra viruses. Syrian Hamsters show similar pathogenesis and disease symptoms as in humans.

**Justification why pain and/or distress could not be relieved:**

We have a rigorous procedure of checking animals for illness. Any animal with a score of 10 or more will be euthanized immediately. Animals will be monitored two times per day when their score exceeds 8 points. However, it is possible that approximately 10% of unvaccinated and control animals will be found dead.

We cannot use analgesics to alleviate their pain because it is known that analgesics interfere with the immune responses and can cause multi-organ damage. This will affect our results.

Some of the references are as follows:

PLoS One. 2010 Feb 19;5(2):e9205. Critical role of toll-like receptor 9 in morphine and Mycobacterium tuberculosis-Induced apoptosis in mice. Chen L, Shi W, Li H, Sun X, Fan X, Lesage G, Li H, Li Y, Zhang Y, Zhang X, Zhang Y, Yin D. Toxicol Appl Pharmacol. 2010 Sep 15;247(3):169-78. Epub 2010 Jul 15.

Role of caspase-1 and interleukin-1beta in acetaminophen-induced hepatic inflammation and liver injury. Williams CD, Farhood A, Jaeschke H. Lupus. 2010 May;19(6):683-8. Epub 2010 Jan 11.

Effect of chloroquine phosphate treatment on serum MMP-9 and TIMP-1 levels in patients with systemic lupus erythematosus. Lesiak A, Narbutt J, Sysa-Jedrzejowska A, Lukamowicz J, McCauliffe DP, Wózniacka A.



Attachment B: Exceptions to Regulations and Standards; USDA, APHIS, Form 7023 (FY13)  
 Centers for Disease Control and Prevention  
 Registration Number: 57-F-0004  
 Customer Number: 947

During the reporting period, the following exceptions to the recommendations in the *Guide for the Care and Use of Laboratory Animals* were approved by the CDC – Atlanta Institutional Animal Care and Use Committee (IACUC):

1. Housing of prairie dogs assigned to research protocols:  
 The *Guide* has recommended cage sizes for specific species of animals. However, prairie dogs are not one of the animals listed. In the *Guide*, the recommended caging requirements for our prairie dogs would fall between guinea pigs greater than 350 grams, and rabbits that are less than 2 kg. For the guinea pigs, the recommended size is greater than 101 square inches floor space and 7 inches tall. For the rabbits, 1.5 square feet of floor space and 16 inches tall. Our cages are 9 inches tall and have 216 square inches of floor space, which does fall in-between these guides. However the *Guide* also states that “at a minimum, an animal must have enough space to turn around and to express normal postural adjustments, must have ready access to food and water, and must have enough clean-bedded or unobstructed area to move and rest in”. Some of the cages used for the prairie dogs provide all of that, with the exception of normal vertical postural adjustment. In the wild, the animals are observed to stand on their hind legs, which they are not able to do in these cages. The reason these cages are used for the prairie dogs is because it is the largest cage manufactured that has a HEPA filtered top. This top is very important to prevent the spread of monkeypox virus between animals since this virus is believed to be spread via large respiratory droplets, fomites and/or excrement transmission. At the inception of the study design, in collaboration with staff from the CDC Animal Resources Branch, these cages were chosen because the studies are typically considered short term, with animals usually remaining in these cages for 30 days or less. Newer, larger ventilated caging is high enough to allow the prairie dogs to stand on their hind limbs. However, there are only a few of these ventilated racks available, so for large numbers or multiple studies, some of the animals will be housed in the older, smaller caging described above.
2. Regarding two separate surgeries for *Saimiri*, *Aotus* and macaque monkeys, the CDC-Atlanta IACUC granted the exception for two separate surgeries in three different species of monkeys. The first surgery, a splenectomy, must occur for the animal to develop parasitemia. The second surgery is for a liver biopsy to study the liver stages. These surgeries occur in this order for the investigator to replicate the disease process.
3. The CDC-Atlanta IACUC has approved the use of Avertin (2, 2, 2 tribromoethanol) anesthesia, a non-pharmaceutical grade compound, for use in mice with the following justification.  
 The immune response to infection plays a significant role in disease pathogenesis. The influence of commonly used anesthetic agents on the immune response, particularly the inflammatory response has been confirmed by animal studies (Flondor et al., Eur. Surg. Res.; 40(1): 1-6; Yang et al., Shock; 28(3): 309-16; Bette et al., Lab. Anim. 38:272-279). In comparison to other common anesthetics, tribromoethanol has been shown to have minimal effects on the immune response. Halogenated volatile anesthetic agents, such as,

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halothane, isoflurane and methoxyflurane have been shown to alter various aspects of the inflammatory response (e.g. effector cell recruitment) and disease pathogenesis in experimental murine models for respiratory virus and bacterial infections (Rubin and Canboneau, *Comp. Med.* 50(3): 292-5; Penna et al., *Interviol.* 31(2-4): 188-96; Knight et al., *Anesthesiol.* 8(3):209-15; Tait et al., *Anesth. Analg* 76(3): 1106-13; Flondor et al., *Eur. Surg. Res.*, 40:1-6). Bette and others (2007), reported that anesthetics including ketamine/xylazine, chloral hydrate, pentobarbital and urethane can significantly enhance the basal expression of splenic pro-inflammatory cytokine gene expression (IL-1B, IL-2, IL-6) in rats. In contrast, the authors found that tribromoethanol (TBE; Avertin) did not influence the basal expression of these cytokines (Bette et al., *Lab. Anim.* 38: 272-279). Tribromoethanol is routinely used in the RSV mouse model because it has minimal side effects and it induces rapid, deep anesthesia which typically delivers RSV directly into the lungs of mice upon intranasal infection. Tribromoethanol has also been routinely used in the influenza mouse model because it has minimal side effects and it induces rapid, deep anesthesia which typically delivers influenza virus directly into the lungs of mice upon intranasal infection. Most importantly, since 1997, the CDC has used Avertin to generate fifty percent mouse infectious dose (MID50) and 50% mouse lethal dose (MLD50) titers on multiple commonly used influenza viruses. Since the type of anesthesia changes MID50 and MLD50 values, it would require a high number of mice to generate new MID50 and MLD50 titers for many of the influenza viruses commonly used at the CDC. The continued use of Avertin would avoid unnecessary use of animals in research.

Several reports in the literature indicate a potential for adverse effects, including peritonitis, ileus, muscle necrosis and death, after TBE/Avertin administration. While other reports indicated no adverse effects associated with TBE/Avertin administration (Papaioannoa and Fox, *Lab Anim. Sci.* 43:189-92; Gardner et al., *Lab Animl Sci.* 45:199-204). The reported adverse effects of TBE may be associated with use (repeated doses) and/or the formation of toxic breakdown products. In this animal protocol, the Avertin/TBE will be used once for survival procedures and once for termination/acute procedures. To prevent toxic breakdown products and possible adverse effects, the Avertin will be prepared and stored using these guidelines: 1) stored and used under sterile conditions; 2) stored in a dark bottle, in the dark at 4C; and 3) solution will be discarded after four months (as recommended by the NIH and Univ. of MN Offices of Animal Care and Use). Since a drop in the pH of the solution to <5.0 may indicate breakdown products, the pH will be maintained at 6.5-7.0 and checked before each use to ensure that it has a pH >5.

4. Physical restraint of rabbits used for tick feeding, the CDC-Atlanta IACUC has approved the following:  
The rabbit is fitted with an Elizabethan collar to prevent it from removing the chambers during 1-3 week feeding period. Rear legs of a rabbit are taped using 1/4" medical water-proof tape ("Bandade") with ~3" space left between the legs to prevent the animal from scratching and damaging tick-feeding bags on its back. Space left between the legs allows a rabbit to comfortably sit, lay and move about the cage but not to scratch. Rear legs of a rabbit are taped for the duration of infestation but not exceeding 14 days.
5. Physical restraint of goats used for tick feeding, the CDC-Atlanta IACUC has approved the following:

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Customer Number: 947

Either an Elizabethan collar or a neck brace (if the goat's neck is too big for a collar to fit properly) is applied to prevent an animal from scratching/removing feeding bags or chambers during tick feeding. Effort will be made by the researchers to place tick-feeding bags in areas on the animal's back, which cannot be reached by its rear legs.

6. Single housing of social species:

Efforts are made to pair or group social species. The IACUC has approved the single housing of social species for periods of studies that require single housed animals to evaluate infectious agents. These studies are generally short term. The IACUC reviews the single housing requirement in approved protocols annually. Additionally, the IACUC reviews social housing of nonhuman primates on a monthly basis during a convened meeting.

7. Regarding the housing 2 separate species in the same room, the CDC-Atlanta IACUC has approved the following:

In some influenza studies conducted in BSL3+, mice and ferrets will be housed in the same room simultaneously, but in separate isolators. Ferrets will be housed in cages within bioisolators or in the HEPA-filtered environmental chamber and mice will be housed in individual isolator cages. Manipulations of mice and ferrets will be performed inside of a BSC but will not be conducted at the same time and animals will be transported using HEPA-filtered transport containers. ARB staff should perform mouse and ferret husbandry duties as usual as long as they are not performed at the same time and gloves are changed out between species

8. Regarding isolation housing of ferrets, the CDC-Atlanta IACUC has approved the following:

Naive ferrets are to be housed in compatible pairs prior to infecting with influenza. Once infected, ferrets are singly housed in a Bio-Cleans unit (BSL3+) or in Individually Ventilated cages (BSL2 and 3+). Every effort is given to house more than one ferret in a room at any given period of time. However, due to the nature of the creating of sera, there will be rare occasions when only one ferret is located in a room. This isolation will not exceed 14 days.

During the reporting period, the following exception to the recommendations in the *Guide for the Care and Use of Laboratory Animals* was approved by the CDC – Fort Collins Institutional Animal Care and Use Committee (IACUC):

One rabbit is utilized approximately once every 3-4 months to act as a blood-meal source for adult ticks. Each rabbit is single-housed for a short acclimation period (2-4 days); ticks are then placed in a stockinette pouch attached to each ear with adhesive tape and an Elizabethan collar placed on the rabbit. The rabbit is single-housed in an Isocage to prevent escape of any ticks into the vivarium.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-F-0004

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

CTR FOR DISEASE CNTL & PREV  
1600 CLIFTON ROAD NE MS D/14

ATLANTA, GA 30333

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	304	0	0	304
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	135	22	2	159
7. Hamsters	0	494	493	14	1001
8. Rabbits	0	190	17	0	207
9. Non-human Primates	0	270	180	0	450
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals	0	253	2	0	255
13. Other Animals	0	1137	202	211	1550

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED

(b)(6), (b)(7)(c)

APHIS 7023 Summary of Exceptions to the Regulations and Standards  
Approved by the GHSU IACUC FY 2013

Registration Number: 57-R-0002

Customer Number: 895

There were a total of three exceptions to the regulations in FY 2013. One exception was to the standards pertaining to the housing space standards for dogs (#1), one exception was to sanitation interval standard for dog cages (#2), and one exception was to the exercise requirement for individually housed dogs (#3).

1. (b) (4)
2. Twelve dogs did not have opportunity for daily exercise (AWR 3.8) on study days when they were individually housed within metabolic cages. Twelve dogs were individually housed and continuously tethered within separate metabolic cages for 8-9 weeks. Within each study, all dogs maintained visual and auditory contact with each other, and each dog daily received individual human attention and interaction during their study participation. Each dog was confirmed as able to stand comfortably and to attain normal postural positioning within its metabolic cage, and each was evaluated daily by research staff and veterinary staff.
3. Twelve instrumented dogs individually housed in metabolic cages had to remain tethered within their respective cages during cage cleaning (AWR 3.11). Each cage was cleaned daily during the study period (8-9 weeks), with bulk organic debris loosened and removed from within the housing area using water and a hand scrub brush. At the end of the study, metabolic cage components (pans) were removed from the study area and run through the tunnel or rack washer for cleaning and sanitization, while the primary enclosures were hand sanitized using hot water and an appropriate detergent/sanitizer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**OMB APPROVED**  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

**UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE**

**ANNUAL REPORT OF RESEARCH FACILITY**  
(TYPE OR PRINT)

**1. REGISTRATION NUMBER**  
57-R-0002

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

AUGUSTA UNIVERSITY  
1120 15TH ST, C J 3317

AUGUSTA, GA 30912

**3. REPORTING FACILITY** (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

**FACILITY LOCATIONS (Sites)**

(b)(7)(F)

**REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY** (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	19	0	19
5. Cats	0	0	7	0	7
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	6	0	6
8. Rabbits	0	0	9	0	9
9. Non-human Primates	0	0	53	0	53
10. Sheep	0	0	0	0	0
11. Pigs	0	0	8	0	8
12. Other Farm Animals					
13. Other Animals					

**ASSURANCE STATEMENTS**

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

**CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
28-JAN-2014

(b)(6), (b)(7)(c)

### **Summary of Studies (Animal) Listed in Column E**

#### **Voles**

With respect to all protocols listed below, treatment to relieve stress was withheld in these animals as the administration of a tranquilizer would modify if not eliminate the desired behavioral response.

In protocol YER2001681, 12 Vole pups were used to study the effect of variation in maternal nurturing behavior on the ability to form relationships later in life. Pups are isolated for the first 14 days after birth and monitored during separation. This is considered a mild psychological stressor. After 14 days, the pups are reared normally. In addition, 48 adult voles were used in an experiment involving quantifying active (swimming) and passive (floating) coping strategies. A passive coping strategy is indicative of depressive-like behavior in rodent models of depression and antidepressant drugs shift behavior from passive to active strategies in this situation.

Under protocol YER2000614, 75 Adult voles were used in an experiment involving mild stressors, after which they are put back with their partners and their behavior is observed. The aim is to develop a vole model of consolation to investigate the brain mechanisms involved in that behavior as well as social behaviors relevant to autism. The IACUC reviewed and approved those Class E procedures.

<b>Protocol #</b>	<b>Name of Study</b>	<b># Animals Reported</b>
YER2001681	Neuropeptide Basis of Social Loss and Depression	60 Voles
YER2000614	Neurobiology of Consolation	75 Voles

#### **Non-human Primates**

The IACUC also reviewed and approved these NHP protocols for Class E procedures. Animals were retrospectively placed in Class E in protocols YER2000558 and YER2001645. Animals assigned to protocol YER2000765 and DAR2001669 were assigned at the initiation of the project.

In protocol YER2000558, 4 rhesus monkeys on a transplant study were retrospectively transferred to Class E. Although analgesics are included in the protocol the treatments appeared ineffective for these animals. This was likely associated with irradiation or graft versus host disease. The animals were euthanized

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In protocol YER2000765, 4 rhesus monkeys underwent procedures to develop a model for ischemic stroke and were allowed to recover from anesthesia. Because of postoperative complications associated with the stroke model that cannot be relieved with the use of analgesics and anesthetics, all animals undergoing anesthetic recovery on this protocol are placed in Class E.

In protocol YER2001645, that involved the use of MPTP, two animals initially reported in Class D were transferred to Class E. The first animal was inappetent, despite treatment for Parkinsonism, leading to progressive weight loss beyond the general IACUC approved endpoints. A special exemption was approved for this animal. The animal was managed intensively by the veterinary department until the animal regained weight. The animal's weight currently remains stable. The second animal was also inappetent, despite treatment for Parkinsonism, leading to progressive weight loss beyond the general IACUC approved endpoints. A special exemption was approved for this animal. The animal was managed intensively by the veterinary department until the animal regained weight. This animal was euthanized in 2013.

The IACUC also reviewed and approved the protocol 2001669 below for class E procedures. In this protocol, pain relieving drugs, except during and immediately following surgery, could not be used because of the potential confounding effects upon the neurological effects of cytokine IFN-alpha. Chronic immune activation induced by treatment with the cytokine causes a self-limiting, depression-like behavioral syndrome. Treatment with analgesic or other pharmacologic agents, particularly those that may have effects upon wakefulness or immune function, may confound interpretation of the effects of the cytokine.

YER2000558	Creating a Nonhuman Primate Model of Graft vs Host Disease	4 Rhesus Macaque
YER2000765	Monkey (Rhesus) Stroke Model	4 Rhesus Macaque
YER2001645	Regulation of Motor Function in Parkinson's Disease	2 Rhesus Macaque
DAR2001669	Dopaminergic Mechanisms of Cytokine-Induced Behavioral Change	5 Rhesus Macaques



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### Hamsters

The IACUC reviewed and approved the protocol 2001737 below for class E procedures. *Mesocricetus auratus*, or the Syrian golden hamster, has been used for over 30 years to study *C. difficile* pathogenesis (Chang, T.W. et al., 1978). Because of the effectiveness of this animal model for fulminant *C. difficile* infection, this species is used. In order to determine whether a gene or mutation can reduce the occurrence of disease due to *C. difficile* it is necessary to study the animals until they exhibit signs of disease. The use of antispasmodic drugs, antibiotics, or analgesics confounds the results by altering the course of the natural disease. Animals are observed and weighed at least once daily. Once the animals become moribund they are humanely euthanized.

DAR2001737	Molecular Mechanisms of <i>Clostridium difficile</i> virulence	110 Hamsters
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**Social Housing:**

In certain protocols, animals are exempted from social housing for variable periods of time needed to conduct the research. Listed below are protocols in which the IACUC exempted animals from social housing requirements and standards of the AWA and implementing regulations. The reasons for the exemptions from social housing and the length of time that animals are exempted have been scientifically justified and reviewed and approved by the Emory IACUC. The exemptions the IACUC granted were from requirements for social housing specified in 9 CFR Part 3, Subpart D to allow singly housed animals for the following protocols:

Protocol #	Name of Study	# Animals Used
YER2000277	GM-CSF Adjuvanted Clade C DNA/MVA and MVA/MVA Vaccines	7 rhesus macaques
YER2000332	PD-1 Blockade as a Therapy for SIV/AIDS	20 rhesus macaques
YER2000345	Gene Therapy for Parkinson's Disease	4 rhesus macaques
YER2000373	Studies of SIV Infection and Reservoirs Using Autologous Bone Marrow Transplant	6 rhesus macaques
YER2000474	Neurobiology of Increased Vulnerability to Social Stressors During Adolescence	17 rhesus macaques
YER2000558	Creating a non-human primate model of graft-versus host disease: Determining mechanism and assessing novel therapeutics	50 rhesus macaques
YER2000561	Cortical Spine Plasticity and Parkinson's Disease	4 rhesus macaques
YER2000598	Stimulation Blockade-Based Strategies to Promote Acceptance of Transplanted Organs	30 rhesus macaques
YER2000603	Immune Activation and AIDS Pathogenesis in SIV-Infected Non-Human Primates	17 rhesus macaques
YER2000618	Cross-Clade Passive Immunization with Human mAbs in Rhesus Monkey Infants	10 rhesus macaques
YER2000708	Maintenance of the Transplant Animal Colony	130 rhesus macaques
YER2000710	PET Neuroimaging and Cocaine Neuropharmacology in Monkeys	24 rhesus macaques
YER2000765	Monkey (Rhesus) Stroke Model	4 rhesus macaques
YER2000832	Immunization of non-human Primates with Low Doses of Whole Parasite to Elicit Protection Against Blood-Stage Malaria	10 rhesus macaques
YER2000885	Novel VLP Vaccines for HIV/SIV	6 rhesus macaques
YER2000957	Thalamic Activity in Parkinsonism	7 rhesus macaques
YER2000984	Targeting mTOR and CD40 Pathways for Adjuvanting HIV Vaccines	92 rhesus macaques
YER2001095	Neuronal Synchronization in the Medial Temporal Lobe and Memory Formation	5 rhesus macaques
YER2001171	Hippocampal Control of Working Memory:	6 rhesus macaques

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	Inactivation and PET in Monkeys	
YER2001186	Innate Immunity in SIV Infection	60 rhesus macaques
YER2001193	Antiparkinsonian Effects of T-Type Calcium Channels	6 rhesus macaques
YER2001216	Behavioral and Neural Processing of Faces and Expressions in Nonhuman Primates	8 rhesus macaques
YER2001234	DNA Vaccines for Induction of the Mucosal Immunity	15 rhesus macaques
YER2001316 YER2001318 YER2001319 YER2000597	Transplant Tolerance in Nonhuman Primates	35 rhesus macaques
YER2001321	Development of Medial Temporal Lobe Functions	22 rhesus macaques
YER2001401	Vaccination Against Mucosal HIV Clade C Transmission	25 rhesus macaques
YER2001443	Pilot Study of a Novel AAC-1 Delivered Combination Immunotherapy Approach for Reduction of Viremia in SHIV-Infected Rhesus Macaques	15 rhesus macaques
YER2001456	Memory and Regulatory T Cells Depletion in Transplantation	9 rhesus macaques
YER2001488	Cocaine Use and Monoamine Function in Nonhuman Primates; Monoamine Transporters and Nonhuman Primate Cocaine Use	21 rhesus macaques
YER2001524	Infant Immunoprophylaxis Against a Primate Lentivirus	4 pigtail macaques 15 rhesus macaques
YER2001548	Methamphetamine and AIDS in a non-human Primate Model	18 rhesus macaques
YER2001615	Safety Signal Learning in Monkeys: Cortical Regulation and its Development	18 rhesus macaques
YER2001645	Regulation of Motor Function in Parkinson's Disease	8 rhesus macaques
YER2001701	Developing Tolerance Approaches to Overcome Humoral Immunity	38 rhesus macaques
YER2001750	Vulnerability Biomarkers for Cocaine Abuse and Relapse	5 rhesus macaques
YER2001813	SK Channel Inhibitor Treatment of Parkinsonism	2 rhesus macaques
YER2001837	Manipulation of Gene Expression in Parkinson's Disease	16 cynomolgus
YER2001883	Center of HIV/AIDS Vaccine Immunology and Immunogen Discovery-Supplement	41 rhesus macaques
YER2001894	Memory Enhancement and Deep-Brain Stimulation in the Medial Temporal Lobe	1 rhesus macaques
YER2001917	Targeting mTOR and CD40 Pathways for Adjuvanting HIV Vaccines	32 rhesus macaques

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YER2002081	Glutamate Receptors: Novel Targets for Parkinson's Disease Therapy	2 rhesus macaques
YER2002083	Regulation of Striatal Function in Parkinson's Disease	7 cynomolgus
YER2002110	Neonatal Programming of Growth and Maturation in Rhesus Monkeys	18 rhesus macaques
YER2002129	Thalamic Interactions with the Striatum	3 rhesus macaques
YER2002130	Extrastriatal Functions of Dopamine	1 rhesus macaques
YER2002179	Cortical Spine Plasticity and Parkinson's Disease	2 rhesus macaques
YER2002206	Evaluation of the Novel Antipsychotic SEP 363856 with fMRI in Non-Human Primates	5 rhesus macaques
YER2002313	PET Neuroimaging and Cocaine Neuropharmacology in Monkeys	24 rhesus macaques
YER2002317	Behavioral and Neural Processing of Faces and Expressions in Nonhuman Primates	8 rhesus macaques
YER2002320	PD-1 Blockade as a Therapy for SIV/AIDS	13 rhesus macaques
YER2002343	Targeting mTOR and CD40 Pathways for Adjuvanting HIV Vaccines	50 rhesus macaques
YER2002344	Development of Medial Temporal Lobe Functions	20 rhesus macaques
YER2002353	Center of HIV/AIDS Vaccine Immunology and Immunogen Discovery-Supplement	13 rhesus macaques

DEC 11 2013

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Certificate 57-R-0003, Customer 896

**Food/Water Restriction:** The following protocols had some type of food or water restriction. Listed below are protocols in which the IACUC exempted animals from feeding and watering requirements and standards of the AWA and implementing regulations. Food and/or water would be withheld because of the scientific needs of the research being conducted. The food and/or water restriction have been scientifically justified in the IACUC protocol and reviewed and approved by the Emory IACUC. The exemptions the IACUC granted were from requirements for food/water specified in 9 CFR Sections 3.82, .83 & .89 for the following protocols:

Protocol #	Name Of Study	# Animals Used
YER2000957	Thalamic Activity in Parkinsonism	7 rhesus macaques
YER2001095	Neuronal Synchronization in the Medial Temporal Lobe and Memory Formation	5 rhesus macaques
YER2001165	The Neural Basis of Relational Memory	3 rhesus macaques
YER2001615	Safety Signal Learning in Monkeys: Cortical Regulation and its Development	18 rhesus macaques
YER2001321	Development of Medial Temporal Lobe Functions	2 rhesus macaques
YER2001894	Memory Enhancement and Deep-Brain Stimulation in the Medial Temporal Lobe	1 rhesus macaques
YER2002344	Development of Medial Temporal Lobe Functions	20 rhesus macaques

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0003

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

EMORY UNIVERSITY  
MAILSTOP 1599-001-1BE  
1599 CLIFTON ROAD NE, 4TH FLOOR OFFICE OF RESEARCH ADMIN  
ATLANTA, GA 30322

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	15	0	957	0	957
7. Hamsters	0	0	5	110	115
8. Rabbits	14	0	178	0	178
9. Non-human Primates	1364	442	1907	15	2364
10. Sheep	0	0	2	0	2
11. Pigs	0	0	187	0	187
12. Other Farm Animals					
13. Other Animals	1544	1033	712	135	1880

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
31-JAN-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0003

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

EMORY UNIVERSITY

MAILSTOP 1599-001-1BE

1599 CLIFTON ROAD NE, 4TH FLOOR OFFICE OF RESEARCH ADMIN  
ATLANTA, GA 30322

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

31-JAN-2014

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0004

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MERCER UNIVERSITY  
1400 COLEMAN AVENUE

MACON, GA 31207

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	42	0	42
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
21-NOV-2013

(b)(6), (b)(7)(c)



This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: 57-R-0005
2. Number 21 of animals used in this study.
3. Species (common name) dog of animals used in the study.
4. Explain the procedures producing pain and/or distress.

Animals were infected with rabies virus intramuscularly and monitored three times per day for development of clinical signs. The distressful procedures are directly related to rabies clinical signs, which include lethargy, inaction, irritability, a tendency to hide, and profuse salivation.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results.  
(For Federally mandated testing, see Item 6 below)

A review of the literature using Medline and EMBASE revealed that there were no appropriate alternatives that did not interfere with the scientific objectives of this research.

Animals must be utilized in this research to develop improved post-exposure treatment of rabies infection in humans, particularly after symptomatic onset. Animals must be infected and demonstrate clinical signs to determine if the laboratory rabies viral strain is effective in dogs and will pose an appropriate challenge for dogs administered an intrathecal test vaccine. Thus it may be necessary to maintain ill animals at some point during the course of the experiment. The laboratory follows the IACUC-approved humane endpoints, documents clinical signs in accordance with IACUC expectations, and follows guidance provided by a laboratory animal veterinarian who works closely with the laboratory staff.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):

Agency N/A CFR

JAN 06 2014

NOV 27 2013

## Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: 57-R-0005
2. Number 19 of animals used in this study.
3. Species (common name) ferret of animals used in the study.
4. Explain the procedures producing pain and/or distress.

These animals were exposed to M. tuberculosis via the respiratory route. To minimize distress, the animals were anesthetized with a combination cocktail containing dexmedetomidine and ketamine per details in AUP protocol. All animals were monitored and kept warm until complete recovery from anesthesia.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results.  
(For Federally mandated testing, see Item 6 below)

A review of the literature using Pubmed, CAB Abstracts and Agricola revealed that there were no appropriate alternatives that did not interfere with the scientific objectives of this research.

Animals must be infected and in some cases demonstrate clinical signs to develop an improved model of human tuberculosis. Thus it may be necessary to maintain minimally ill animals at some point during the course of the experiment. The IACUC protocol's humane endpoints describe when animals will be euthanized. In addition, we will not withhold sedation or anesthesia where indicated. None of the animals showed any clinical signs of the disease in federal FY13.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):

Agency N/A CFR

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: 57-R-0005
2. Number 50 of animals used in this study.
3. Species (common name) ferret of animals used in the study.
4. Explain the procedures producing pain and/or distress.

Influenza or paramyxovirus inoculations were performed under isoflurane or ketamine anesthesia in a biosafety cabinet. Each ferret was individually removed from ventilated microisolator caging and anesthetized, and 0.2 ml of influenza inoculum will be dripped into the nares using IV catheter tubing on a syringe (0.1 ml per nostril) with the ferret in an upright position.

Procedures include use of infectious agents (influenza or paramyxovirus); Specimen collection (bronchioalveolar lavage, nasal wash, blood collection, swabs (rectal, oral, nasal, conjunctival, etc); plethysmography, euthanasia, monitoring for clinical disease (symptoms, weight loss, fever, activity), microchip identification, vaccination, drug treatment, antibody treatment. Ferrets only experienced mild disease, consisting of transient weight loss <10% (which they quickly regained), and a transient body temperature increase of <2 degrees Celsius.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results.  
(For Federally mandated testing, see Item 6 below)

A review of the literature using Agricola and Medline revealed that there were no appropriate alternatives that did not interfere with the scientific objectives of this research.

As a part of monitoring disease, animals are monitored for fever, weight loss, activity and lethargy. Treatment of ferrets with analgesics can alter these endpoints, which are aspects of criteria for euthanasia. Moreover, the anti-inflammatory activity of analgesics would interfere with pathology studies, a key endpoint in these studies. Finally, some analgesics may cause respiratory depression or vomiting, which would be of greater concern than the mild symptoms expected from infection.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):

Agency N/A CFR

JAN 06 2014

NOV 27 2013

## Column E Explanation

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1. Registration Number: 57-R-0005
2. Number 96 of animals used in this study.
3. Species (common name) guinea pig of animals used in the study.
4. Explain the procedures producing pain and/or distress.

Some of these animals were exposed to *M. tuberculosis* aerosols generated by the Madison Aerosol Chamber only. To minimize distress, when using the Aerogen Microspray device, the animals were lightly anesthetized with a combination cocktail containing acepromazine, ketamine and xylazine per details in AUP protocol. All animals were monitored and kept warm until complete recovery from anesthesia.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results.  
(For Federally mandated testing, see Item 6 below)

A review of the literature using Pubmed, CAB Abstracts and Agricola revealed that there were no appropriate alternatives that did not interfere with the scientific objectives of this research.

Animals must be infected and in some cases demonstrate clinical signs to determine if a mutation affects the virulence of the organism or if vaccination is effective. Thus it may be necessary to maintain minimally ill animals at some point during the course of the experiment. As the humane endpoints score sheet documents in Section 10.2, animals will be euthanized if the sum of the clinical scoring is greater than or equal to 3. In addition, we will not withhold sedation or anesthesia where indicated. None of the animals showed any clinical signs of the disease until 5-6 weeks post infection when they were euthanized.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):

Agency N/A CFR

## Column E Explanation

JAN 06 2014

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: 57-R-0005
2. Number 5 of animals used in this study.
3. Species (common name) swine of animals used in the study.
4. Explain the procedures producing pain and/or distress.

Five pigs were used in the study, however, only 1 developed any overt signs of stroke with possible associated distress.

Surgery is performed to create a pig stroke model. A frontal craniotomy is performed on the left side of the head. The middle cerebral artery is occluded for 90 minutes, then released to allow reperfusion. The pigs is recovered from surgery. Due to the nature of the stroke injury, there is the potential for overt signs of stroke which could cause distress.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results.  
(For Federally mandated testing, see Item 6 below)

Appropriate anesthesia and analgesia were used to relieve pain and distress from the surgery itself. None of the pigs demonstrated signs of pain beyond the immediate post-surgical period, so additional analgesia was not indicated. However, this stroke model requires stroke induced tissue damage to the cortex that has the potential to cause stroke signs that may be distressing for the pig. Signs have included mild loss of coordination with 1 limb, general ataxia, difficulty or inability to eat unassisted for up to 5 days (this pig was hand fed during this period), unable to drink unassisted for 1-2 days (this pig was given IV fluids and/or hand watered during this period). In all cases, potential non-surgical distress was mitigated to the greatest extent possible through the use of non-pharmacologic methods. Anesthesia or sedation/tranquilizers would interfere with the neurological assessment of the pigs that was necessary for the research and for monitoring their well being. A search of the relevant literature did not reveal means of pharmacologic relief for potential distress that did not interfere with critical neurological assessments.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):

Agency NA CFR

JAN 06 2014

## Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

57-R-0005

1. Registration Number: \_\_\_\_\_

2. Number 21 \_\_\_\_\_ of animals used in this study.

3. Species (common name) swine \_\_\_\_\_ of animals used in the study.

4. Explain the procedures producing pain and/or distress.

21 pigs were used in the study, however, only 1 developed any overt signs of brain injury with possible associated distress.

Surgery is performed to create a penetrating brain injury model. A paramedian skin incision is made on the right side of the head over the frontal bone. A circular piece of bone (<1cm) is removed, and a scalpel is inserted into the cortex to create a 3x3 mm wound. The pigs is recovered from surgery. Due to the nature of the brain injury, there is the potential for overt signs of brain injury which could cause distress.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results.  
(For Federally mandated testing, see Item 6 below)

Appropriate anesthesia and analgesia were used to relieve pain and distress from the surgery itself. None of the pigs demonstrated signs of pain beyond the immediate post-surgical period, so additional analgesia was not indicated. However, this penetrating brain injury model requires creating a brain injury that has the potential to cause signs that may be distressing for the pig. One of the 21 pigs showed short-term overt signs of brain injury related circling behavior. None of the pigs showed signs of distress. In all cases, potential non-surgical distress was mitigated to the greatest extent possible through the use of non-pharmacologic methods. Additionally, anesthesia or sedation/tranquilizers would interfere with the neurological assessment of the pigs that was necessary for the research and for monitoring their well being. A search of the relevant literature did not reveal means of pharmacologic relief for potential distress that did not interfere with critical neurological assessments.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):

Agency NA \_\_\_\_\_ CFR \_\_\_\_\_

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0005

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF GEORGIA  
212 TUCKER HALL  
310 EAST CAMPUS ROAD  
ATHENS, GA 30602

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	19	59	21	99
5. Cats	0	6	42	0	48
6. Guinea Pigs	0	0	96	96	192
7. Hamsters	0	0	46	0	46
8. Rabbits	0	10	73	0	83
9. Non-human Primates	0	7	0	0	7
10. Sheep	0	0	7	0	7
11. Pigs	0	0	121	2	123
12. Other Farm Animals	0	83	49	0	132
13. Other Animals	0	27	767	69	863

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
30-JAN-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0005

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

UNIVERSITY OF GEORGIA  
212 TUCKER HALL  
310 EAST CAMPUS ROAD  
ATHENS, GA 30602

(TYPE OR PRINT)

## REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

[illegible]

## ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

30-JAN-2014



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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0010

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

GEORGIA INSTITUTE OF TECHNOLOGY  
505 TENTH STREET NW

ATLANTA, GA 30318

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	4	0	0	4
5. Cats	11	1	17	0	18
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	39	8	0	47
9. Non-human Primates	0	1	0	0	1
10. Sheep	0	4	0	0	4
11. Pigs	0	2	0	0	2
12. Other Farm Animals	0	12	0	0	12
13. Other Animals	0	10	0	0	10

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
03-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0010

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

GEORGIA INSTITUTE OF TECHNOLOGY  
505 TENTH STREET NW

ATLANTA, GA 30318

## REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

[illegible]

## ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

03-FEB-2014

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0012

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

GEORGIA STATE UNIVERSITY  
30 COURTLAND STREET

ATLANTA, GA 30303

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	563	1795	2697	0	4492
8. Rabbits	0	0	4	0	4
9. Non-human Primates	0	34	0	0	34
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	2	36	0	38

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
21-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0012

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

GEORGIA STATE UNIVERSITY  
30 COURTLAND STREET

ATLANTA, GA 30303

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

21-NOV-2013

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0015

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

T R S LABS INC  
P O BOX 5112

ATHENS, GA 30604

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	190	18	0	208
5. Cats	0	106	0	0	106
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	35	0	0	35
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	1555	357	0	1912

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
21-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0015

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

T R S LABS INC  
P O BOX 5112

ATHENS, GA 30604

## REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

[illegible]

## ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

21-NOV-2013

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0017

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

FORT VALLEY STATE UNIVERSITY  
PO BOX 4370  
DEPARTMENT OF VETERINARY SCIENCE  
FORT VALLEY, GA 31030

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	10	3	0	13
5. Cats	0	12	2	0	14
6. Guinea Pigs	0	5	0	0	5
7. Hamsters	0	5	0	0	5
8. Rabbits	0	5	0	0	5
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals	0	6	0	0	6
13. Other Animals	0	6	0	0	6

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
29-NOV-2013

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0017

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

FORT VALLEY STATE UNIVERSITY  
PO BOX 4370  
DEPARTMENT OF VETERINARY SCIENCE  
FORT VALLEY, GA 31030

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
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- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

29-NOV-2013



NOV 26 2013

BD/Lee Laboratories  
1475 Athens Highway Grayson, Georgia 30017  
Phone: 770-972-4450; Fax: 770-979-9570



**BD**

Indispensable to  
human health

November 21, 2013

Elizabeth Goldentyer, D.V.M.  
USDA, APHIS Eastern Regional Office, Animal Care  
Unit No. 3040  
920 Main Campus Drive, Suite 200  
Raleigh, NC 27606


Dear Dr. Goldentyer:

The 2,276 rabbits listed under Column E of our USDA Form 7023 were used to produce *Treponema pallidum* organisms for the diagnosis of syphilis. Under this IACUC approved protocol, number 4B, we infected rabbits with the organism, and allowed them to develop the disease for 10-12 days before euthanizing them. A post mortem harvest collected the *Treponema* spirochetes.

We may infer that the orchitis associated with *Treponema* infection caused some distress, but treatment of the disease would destroy or impact the organisms the procedure is intended to produce.

Sincerely,

(b) (6), (b) (7)(C)



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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0101

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

NORTHSIDE HOSPITAL  
1000 JOHNSON FERRY ROAD  
INSTITUTIONAL REVIEW BOARD  
ATLANTA, GA 30342

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	331	0	331
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
29-NOV-2013

(b)(6), (b)(7)(c)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0110

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MEMORIAL HEALTH UNIVERSITY MC  
P.O. BOX 23089

SAVANNAH, GA 31403

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
13-DEC-2013

(b)(6), (b)(7)(c)

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0116

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

MERIAL INC  
3239 SATELLITE BLVD., BLDG 500

DULUTH, GA 30096

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	891	10	0	901
5. Cats	0	387	105	1	493
6. Guinea Pigs	0	200	0	0	200
7. Hamsters	0	3626	629	2157	6412
8. Rabbits	0	10	118	0	128
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	49	0	0	49

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
27-JAN-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0116

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

MERIAL INC  
3239 SATELLITE BLVD., BLDG 500

DULUTH, GA 30096

## REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

[illegible]

## ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

27-JAN-2014

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0119

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

OGEECHEE TECHNICAL COLLEGE  
ONE JOE KENNEDY BLVD

STATESBORO, GA 30458

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	18	6	0	24
5. Cats	0	4	0	0	4
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals	0	20	0	0	20
13. Other Animals	0	12	0	0	12

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
03-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0119

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

OGEECHEE TECHNICAL COLLEGE  
ONE JOE KENNEDY BLVD

STATESBORO, GA 30458

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

03-FEB-2014

NOV 25 2013

(b) (6), (b) (7)(C)

**From:** (b) (6), (b) (7)(C)  
**Sent:** Monday, November 18, 2013 3:31 PM  
**To:** (b) (6), (b) (7)(C)  
**Subject:** RE: USDA Annual Report

(b) (6), (b) (7)(C)

It was a slow year. Numbers below.

Column B = 0  
Column C = 0  
Column D = 0  
Column E = 7

Note that the animals in Column E were live-caught as part of a mark-recapture study. No animals were euthanized. (b) (6), (b) (7)(C)

**From:** (b) (6), (b) (7)(C)  
**Sent:** Monday, November 18, 2013 2:32 PM  
**To:** (b) (6), (b) (7)(C)  
**Subject:** USDA Annual Report

(b) (6), (b) (7)(C)

Attached is the USDA Annual Report. Under #13, other animals, please give the number of armadillos in your research that are classified under columns B-E.

The report is required to be mailed and is due 12/1/13. I apologize for the short turn around but please complete as soon as possible and return by email.

Thank you for your time and patience.

(b) (6), (b) (7)(C)

Valdosta State University

(b) (6), (b) (7)(C)





USDA  
Animal Care  
920 Main Campus Drive  
Suite 200  
Raleigh, NC 27606-5213

Nov 7, 2013

RE: IACUC Approved Exceptions

The Valdosta State University IACUC has approved the following exception for the diurnal lighting schedule of hamsters used by (b) (6), (b) (7)(C) in his experimental protocol:

“That hamsters used in experimental studies of circadian activity rhythms be kept under conditions of constant darkness for periods up to 1 month. This is necessary to examine endogenous rhythms that are not entrained by the environmental lighting cycle. In order to assess the effects of drugs on endogenous circadian phase, the hamsters must be allowed to free-run under constant lighting conditions, in this case, constant darkness.”

This exception applied to 228 hamsters during this reporting period and includes all the hamsters reported in Columns C and D.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0120

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VALDOSTA STATE UNIVERSITY  
1500 NORTH PATTERSON STREET

VALDOSTA, GA 31698

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	188	40	0	228
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	0	0	7	7

ASSURANCE STATEMENTS

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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
20-MAY-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0120

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

VALDOSTA STATE UNIVERSITY  
1500 NORTH PATTERSON STREET

VALDOSTA, GA 31698

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

20-MAY-2014

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0121

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

GEORGIA SOUTHERN UNIVERSITY  
BOX 8005

STATESBORO, GA 30460

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	3	0	0	0	0

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
09-DEC-2013

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0121

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

GEORGIA SOUTHERN UNIVERSITY  
BOX 8005

STATESBORO, GA 30460

## REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

[illegible]

## ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

09-DEC-2013

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0122

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

TRANSLATIONAL TESTING AND TRAINING LABORATORIES  
387 TECHNOLOGY CIRCLE SUITE 175

ATLANTA, GA 30313

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	15	0	15
5. Cats	0	0	2	0	2
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	54	0	54
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	18	0	18
11. Pigs	4	0	268	0	268
12. Other Farm Animals	0	0	7	0	7
13. Other Animals					

ASSURANCE STATEMENTS

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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
21-NOV-2013

(b)(6), (b)(7)(c)

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0023

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

DIFCO LABORATORIES  
1475 ATHENS HIGHWAY  
  
GRAYSON, GA 30221

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	1052	0	2276	3328
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
28-JAN-2014

(b)(6), (b)(7)(c)



According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**OMB APPROVED**  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

**UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE**

**ANNUAL REPORT OF RESEARCH FACILITY**  
(TYPE OR PRINT)

**1. REGISTRATION NUMBER**  
57-R-0124

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

MOREHOUSE SCHOOL OF MEDICINE  
720 WESTVIEW DRIVE SW

ATLANTA, GA 30310

**3. REPORTING FACILITY** (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

**FACILITY LOCATIONS (Sites)**

(b)(7)(F)

**REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY** (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	109	0	109
8. Rabbits	0	0	3	0	3
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

**ASSURANCE STATEMENTS**

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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**CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
03-FEB-2014

(b)(6), (b)(7)(c)



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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0125

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

HADES LLC  
7 CROSS CREEK CT

POOLER, GA 31322

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals	12	0	0	0	0
13. Other Animals	0	0	0	0	0

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
15-MAY-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0125

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

HADES LLC  
7 CROSS CREEK CT

POOLER, GA 31322

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

15-MAY-2014

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**OMB APPROVED**  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

**UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE**

**ANNUAL REPORT OF RESEARCH FACILITY**  
(TYPE OR PRINT)

**1. REGISTRATION NUMBER**  
57-R-0126

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

SOUTHWEST GEORGIA TECHNICAL COLLEGE  
15689 US HWY 19 NORTH

THOMASVILLE, GA 31792

**3. REPORTING FACILITY** (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

**FACILITY LOCATIONS (Sites)**

(b)(7)(F)

**REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY** (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	43	106	0	149
5. Cats	0	27	59	0	86
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	4	0	4
8. Rabbits	0	5	12	0	17
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals	0	9	0	0	9

**ASSURANCE STATEMENTS**

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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**CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
03-FEB-2014

(b)(6), (b)(7)(c)

OMB APPROVED  
0579-0036

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

1. REGISTRATION NUMBER  
57-R-0126

**2. HEADQUARTERS RESEARCH FACILITY** (Name, address, and telephone number as registered with USDA, include ZIP Code)

SOUTHWEST GEORGIA TECHNICAL COLLEGE  
15689 US HWY 19 NORTH

THOMASVILLE, GA 31792

[illegible]

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
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I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

(b)(6), (b)(7)(c)

DATE SIGNED \_\_\_\_\_

03-FEB-2014

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-R-0127

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

OGEECHEE TECHNICAL COLLEGE  
ONE JOE KENNEDY BLVD

STATESBORO, GA 30458

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	10	12	0	22
5. Cats	0	5	8	0	13
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	9	0	9
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
13-DEC-2013

(b)(6), (b)(7)(c)

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-V-0001

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VA MEDICAL CENTER  
1670 CLAIRMONT ROAD

DECATUR, GA 30033

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	5	0	5
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
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(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
03-FEB-2014

(b)(6), (b)(7)(c)

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OMB APPROVED  
0579-0036  
Exp.: 10/31/2018

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Interagency Report Control  
No. 0180-DOA-AN

Fiscal Year 2013

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)

1. REGISTRATION NUMBER  
57-V-0002

2. HEADQUARTERS RESEARCH FACILITY (Name, address, and telephone number as registered with USDA, include ZIP Code)

VA MEDICAL CENTER  
ONE FREEDOM WAY

AUGUSTA, GA 30904

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets, if necessary.)

FACILITY LOCATIONS (Sites)

(b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets, if necessary, or use APHIS FORM 7023A.)

A.  Animals Covered By The Animal Welfare Regulations	B.  Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C.  Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D.  Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E.  Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	F.  TOTAL NUMBER OF ANIMALS  (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primates	0	0	0	0	0
10. Sheep	0	0	0	0	0
11. Pigs	0	0	0	0	0
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (I.O.))

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR I.O.

NAME AND TITLE OF C.E.O. OR I.O. (Type or Print)

DATE SIGNED  
10-DEC-2013

(b)(6), (b)(7)(c)

### Column E Explanation

1. **Registration Number:** 57-R-0116
2. **Number** 6412 **of animals used in this study.**
3. **Species (common name)** Hamsters **of animals used in this study.**
4. **Explain the procedure producing pain and/or distress.**

This testing requires challenging hamsters with the virulent agent in order to evaluate efficacy and potency. 2157 hamsters experienced weight loss, debilitation and death.

5. **Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)**

The testing procedures for biologics (vaccines) are established by the USDA Center for Veterinary Biologics (USDA CVB) and are codified in 9 Code of Federal Regulations (CFR): Animals and Animal Products. Additional procedures for testing also are outlined with each company by USDA CVB based on the Supplemental Assay Methods.

Testing is required to verify that the test article induces an immune response which provides protection against the specific virulent organism. Pursuant to regulation, vaccinated and control hamsters are used for such testing. All hamsters are challenged with the virulent organism. By regulatory requirement, 80% of the unvaccinated hamsters must be euthanized or die of the disease for the test to be valid. This testing procedure is codified in 9 CFR §§ (b) (4). According to the 9 CFR, test animals exhibiting clinical signs of the disease at issue may be humanely euthanized. In some cases, the rapid progression of the disease makes intervention prior to death difficult. In addition, test parameters would be impacted by the use of antibiotics, analgesics or anti-inflammatory drugs. These drugs would invalidate the scientific value of the testing.

6. **What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title**



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**number and the specific section number (e.g., APHIS, 9CFR  
(b) (4)**

**Agency** USDA APHIS **CFR** (b) (4) **. (see below)**

Merial claims the identification of the particular 9 CFR sections listed above as confidential business information, subject to protection from public disclosure under Exemption 4 of 5 U.S.C. §522(b)(4). Different 9 CFR sections address the development/licensing of different products. Revealing a particular 9 CFR section pursuant to which studies were undertaken would inform competitors as to the products Merial is researching and developing. Competitors could use this information to guide their own research and commercial activities, thus giving them a competitive advantage over Merial and likely resulting in financial loss to Merial.

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### Column E Explanation

1. **Registration Number:** 57-R-0116
2. **Number** 60 **of animals used in this study.**
3. **Species (common name)** Cat **of animals used in this study.**
4. **Explain the procedure producing pain and/or distress.**

This testing requires challenging cats with the virulent agent in order to evaluate efficacy. 1 cat experienced death.

5. **Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)**

The testing procedures for biologics (vaccines) are established by the USDA Center for Veterinary Biologics (USDA CVB) and are codified in 9 Code of Federal Regulations (CFR): Animals and Animal Products.

Testing is required to verify that the test article induces an immune response which provides protection against the specific virulent organism. Pursuant to regulation, vaccinated and control cats are used for such testing. All cats are challenged with the virulent organism. By regulatory requirement, at least 80% of the unvaccinated cats must be euthanized or die of the disease for the test to be valid. This testing procedure is codified in 9 CFR (b) (4). According to the 9 CFR, test animals exhibiting clinical signs of the disease at issue may be humanely euthanized. In some cases, the rapid progression of the disease makes intervention prior to death difficult. In addition, test parameters would be impacted by the use of antibiotics, analgesics or anti-inflammatory drugs. These drugs would invalidate the scientific value of the testing.

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- 6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR (b) (4))**

**Agency** USDA APHIS **CFR** (b) (4) **9. (see below)**

Merial claims the identification of the particular 9 CFR sections listed above as confidential business information, subject to protection from public disclosure under Exemption 4 of 5 U.S.C. §522(b)(4). Different 9 CFR sections address the development/licensing of different products. Revealing a particular 9 CFR section pursuant to which studies were undertaken would inform competitors as to the products Merial is researching and developing. Competitors could use this information to guide their own research and commercial activities, thus giving them a competitive advantage over Merial and likely resulting in financial loss to Merial.